Committee on Review of EPA's IRIS Assessment Handbook

Lisa Bero

Chair

Lisa Bero is a professor in the School of Public Health and the School of Medicine (General Internal Medicine) at the University of Colorado CU Anschutz Medical Center. She is also the Chief Scientist at the Center for Bioethics and Humanities at that medical center. In addition, she is an affiliated professor at the Charles Perkins Centre and School of Pharmacy, Faculty of Medicine and Health at the University of Sydney. Dr. Bero is an adjunct professor in the Department of Clinical Pharmacy and Institute for Health Policy Studies at the University of California, San Francisco. She is recognized for her methodological studies on bias (including publication/reporting, design and funding biases) in the fields of clinical medicine (pharmaceuticals), tobacco control and environmental research, and on the use and implications of the evidence for prescribing decisions/policy. She investigates hidden biases in the design, conduct and publication of research. For more than 20 years, Dr. Bero has been actively involved in the Cochrane Collaboration, a global organization that summarizes the best evidence from research to help make informed choices about health care. She served as a member of the National Academies Board on Health Care Services; Committee to Review the IRIS Process, and Committee on Conflicts of Interest in Medical Research, Education, and Practice. Dr. Bero received a PhD in pharmacology from Duke University.

Hugh A. Barton

Member

Hugh A. Barton is an independent consultant for applications of systems pharmacology and toxicology to drug discovery and safety evaluation or environmental risk assessment. He provides expert advice on physiologically based pharmacokinetic (PBPK) and pharmacodynamic (PD) models to address low-dose, interspecies, and inter-route extrapolations in estimating risks and their implementation for decision-making. Dr. Barton formerly was Associate Research Fellow with Biomedicine Design at Pfizer, Inc. for ten years. He focused on drug discovery by applying translational modeling and simulation to oncology, cardiovascular disease, and neurodegenerative diseases to assess PK, PD, and safety. Prior to that, he worked for US EPA for 9 years and several consulting companies. He was a member of the National Academies Committee on Inorganic Arsenic and the Committee to Evaluate the IRIS Protocol for Inorganic Arsenic. Dr. Barton currently serves as a member of EPA's Science Advisory Board (SAB) and as chair of the SAB Chemical Assessment Advisory Committee. He received a PhD in toxicology from the Massachusetts Institute of Technology.

Weihsueh A. Chiu

Member

Weihsueh A. Chiu is a professor in the Department of Veterinary Integrative Biosciences at the Texas A&M University. His research focuses on the development of quantitative, data-driven approaches for understanding and predicting the human health effects of environmental chemicals. Specifically, his research applies computational and statistical methods to transform data into knowledge used to protect public health. He also has an interest in approaches to estimate the variability in individual susceptibility to environmental exposures, so as to better protect sensitive subpopulations. Dr. Chiu currently serves on the National Academies Committee on Use of Emerging Science for Environmental Health Decisions. His previous service on National Academies committees includes the Committee on Endocrine-Related Low Dose Toxicity and the Committee on Predictive-Toxicology Approaches for Military Assessments of Acute Exposures. He received a PhD in physics from Princeton University.

Gary L. Ginsberg

Member

Gary L. Ginsberg is director of the Center for Environmental Health within the New York State Department of Health and has a clinical professor appointment at the Yale School of Public Health. Previously, he was a state toxicologist in the Connecticut Department of Public Health Division of Environmental and Occupational Health Assessment. Dr. Ginsburg is involved in the use of toxicology and risk-assessment principles to evaluate human exposure to chemicals in air, water, soil, food, and the workplace. His published work includes the development and evaluation of physiologically based pharmacokinetic modeling for assessing risks from exposure to environmental agents, including neurotoxic effects, the interaction of lead and psycho-social stress, and developmental aspects of children. He served on several National Academies committees, including the Committee on Use of Emerging Science for Environmental Health Decisions, Committee on Inorganic Arsenic, Committee on Improving Risk Analysis Approaches Used by the U.S. EPA, and Committee on Human Biomonitoring for Environmental Toxicants. Dr. Ginsberg received a PhD in toxicology from the University of Connecticut.

Julie Herbstman

Member

Julie B. Herbstman is an associate professor in the Department of Environmental Health Sciences, director of the Columbia Center for Children's Environmental Health, and co-director of the Certificate Program in Molecular Epidemiology at the Columbia University Mailman School of Public Health. Her recent research work involves the integration of epigenetic biomarkers to explore the mechanistic pathway between prenatal exposures and disease risk. In addition, she has addressed the impact of prenatal exposures to environmental pollutants, including polybrominated diphenyl ethers (PBDEs) and polycyclic aromatic hydrocarbons (PAHs) on child growth and development. She has also been involved in research exploring the long-term environmental health impact of exposure to pollutants from the collapse of the World Trade Center on 9/11. Dr. Herbstman received a PhD in environmental epidemiology from the Johns Hopkins University.

Jessica L. Myers

Member

Jessica L. Myers is a toxicologist and risk assessor. She is currently working at the Texas Commission on Environmental Quality (TCEQ). Dr. Myers co-authored TCEQ guidance on conducting systematic reviews during the development of chemical-specific toxicity factors. She currently serves on the National Academies Committee to Review EPA's TSCA Systematic Review Guidance Document. She has a PhD in cell and molecular biology from the University of Texas at Austin.

Heather B. Patisaul

Member

Heather B. Patisaul is the Associate Dean for Research in the College of Sciences and a professor in the Department of Biological Sciences at North Carolina State University. She explores the mechanisms by which endocrine disrupting compounds (EDCs) alter neuroendocrine pathways in the brain related to sex specific physiology and behavior. She is specifically interested in phytoestrogens, flame retardants, and BPA (Bisphenol A). Dr. Patisaul is a NIEHS ONES Award recipient (2007) and has participated on several national and international expert panels and workshops related to health effects associated with soy and other endocrine disruptors. She chaired the 2016 Gordon Research Conference on Environmental Endocrine Disruptors, and has co-edited several special issues on endocrine disruptors, brain and behavior. In addition, Dr. Patisaul served on three previous National Academies committees: the workshop planning Committee on Understanding the Paradigm Change at the Interface of Emerging Sources of Environmental Health Data and Decision Making, Committee on Incorporating 21st Century Science in Risk-Based Evaluations, and Committee to Review EPA's Draft Paper, State of the Science on Nonmonotonic Dose Response (NMDR). She received a PhD in Population Biology, Ecology & Evolution from Emory University.

David Richardson

Member

David B. Richardson is a professor in the Department of Epidemiology, School of Public Health at the University of North Carolina at Chapel Hill. He is also deputy director of the North Carolina Occupational Safety and Health Education and Research Center and director of the center's Program in Occupational Epidemiology. His research focuses on the health effects of occupational and environmental exposures, particularly with regards to carcinogens. He has conducted studies of cancer among workers in the United States and abroad. Dr. Richardson's current research includes studies of mortality among nuclear industry workers and uranium miners, and development of innovative methods for occupational cancer studies. He is an associate editor of the journals Occupational and Environmental Medicine, American Journal of Epidemiology and Environmental Health Perspectives. His service on National Academies committees includes the Committee to Review the Health Effects in Vietnam Veterans of Exposure to Herbicides - Tenth Biennial Update and the Committee on the Review of the Department of Labor's Site Exposure Matrix (SEM) Database. Dr. Richardson received a PhD and MSPH, both in epidemiology, from the University of North Carolina at Chapel Hill.

Paul Whaley

Member

Paul Whaley is a researcher and academic editor specializing in systematic review methods for environmental health research and chemical risk assessment. He is based at Lancaster Environment Centre, at Lancaster University, UK. Mr. Whaley is also a Research Fellow of the Evidence-based Toxicology Collaboration (EBTC) at the Johns Hopkins Bloomberg School of Public Health, where he co-leads several EBTC initiatives on improving the quality of published toxicological and environmental health research. In general, his work focuses on developing frameworks for systematic mapping and review of scientific evidence in support of assessing and managing human health risks posed by exposure to environmental challenges. Mr. Whaley is Systematic Reviews Editor for Environment International. He has an MLitt in philosophy from the University of St Andrews and is pursuing a PhD in research synthesis methods in environmental health at Lancaster University.

Kristine L. Willett

Member

Kristine L. Willett is a Professor of Pharmacology and Environmental Toxicology and Chair of the Department of BioMolecular Sciences at the University of Mississippi. Her research interests include using fish models to study mechanisms of polycyclic aromatic hydrocarbon and cannabinoid toxicity as well as in new drug discovery for cancer and epilepsy. Dr. Willett also has studied nanosilver mechanisms of toxicity and the consequences of the Deep Water Horizon Oil Spill on oysters. She has led research projects which were designed to fundamentally understand the molecular mechanisms underlying toxicity and/or shed light on the potential adverse outcomes due to relevant anthropogenic contamination. She is a deputy editor for Toxicological Sciences. Dr. Willett received a PhD in Toxicology from Texas A&M University.

Corwin Zigler

Member

Corwin Zigler joined the faculty of The University of Texas at Austin in 2018, sharing joint appointments in the Department of Statistics and Data Sciences and the Department of Women's Health at Dell Medical School. Prior to joining the University of Texas, he was faculty in the Department of Biostatistics at the Harvard T.H. Chan School of Public Health. Dr. Zigler's primary statistical research focus is Bayesian statistical methods for making causal inferences with observational data. His work has focused on problems in environmental health and environmental policy, with key contributions in air pollution epidemiology, regulatory policy, studies of point-source exposure, and health impacts of power plant emissions. His work integrates methods from across the disciplines of statistics, epidemiology, and atmospheric science and engineering. Specific areas of application to environmental health include: evaluation of federal nonattainment designations for national ambient air quality standards and evaluation of strategies to control harmful pollution emissions from power plants. He currently serves as associate editor for the journals Biometrics and Biostatistics, and is heavily involved through elected positions in the Health Policy Statistics Section of the American Statistical Association. His career awards include the 2010 Carolbeth Korn Prize for the most outstanding graduating student in the UCLA School of Public Health, a 2012 Young Investigator Award from the Statistics in Epidemiology Section of the American Statistical Association, and the 2019 Rothman Prize for the best paper published in Epidemiology. Dr. Zigler received a PhD in biostatistics from the University of California, Los Angeles.